

Delivery Conditions

Nordic Galvanizers.

If nothing else has been agreed in writing, or has been described in these conditions, the hot dip galvanizing will be performed after NS-EN ISO 1461, and after NL-92.

1: Damage liability.

- A. The Hot Dip Galvaniser (HDG) warrants that he will take good care of the submitted items, and apply the correct technical treatment throughout the whole galvanization process.
- B. The customer is obliged to provide all relevant information for evaluation of the goods.
- C. HDG will not accept liability for damage to the items due to the unsuitability of the substrate for the process in question.
- D. A Guideline setting out the requirements for items to be hot-dip galvanized is provided in Norwegian Standard NS-EN ISO 1461, and the book "Varmforzinking" (Hot dip Galvanising), published by Nordic Galvanizers

2: Suspension:

- A. The HDG will use the pre-existing holes, handles, latches, loops and other structures on the fabrication in order to suspend it during galvanizing, provided they look sufficiently robust and are conveniently placed.
- B. The HDG cannot be held responsible for any damage that may result because of this.
- C. If there is a risk of damage, the customer must expressly state this when he delivers the items.

3: Complex structures.

- A. Complex structures are processed as a single unit.
- B. If the customer wants the HDG to dismantle parts and process them separately, this must be confirmed and must be clearly stated on the manifest.

4: Tolerances.

- A. It is the customer's responsibility to see that there is sufficient gap between adjacent surfaces – for example on hinges, nuts, threaded bolts etc., if the parts should be moving after galvanization.

5: Purification, wire-brushing etc.

Holes that need cleaning and threads that need recutting or wire-brushing are considered extra work, and will be calculated additional payment unless otherwise agreed.

6: Cleaning.

- A. All objects must be cleaned of paint, varnish, grease, oil, storage rust, zink and other contaminants and products which are not removed by the normal pickling process.
Additional payment will be calculated, to be paid by the customer
- B. If markings are difficult to remove, an extra charge will be made for mechanical cleaning, or re-galvanisation, or repair, to be paid by the customer

7: Welded seams and other fixings.

- A. The customer must make sure that all welded seams are free from slag. Any slag residues will stand out clearly after galvanization as black, incoated areas. The HDG cannot be held responsible for such blemishes.
- B. The HDG cannot be held responsible for patches and rust due to weld seepage, namely the emission of pickling solution from very small cavities (pinholes) in weld, or from narrow spaces between two closely contacting surfaces that have been spot welded, bolted or riveted together.

8: Substrate flaws.

- A. Any blemishes in the zinc coat due to rolling mill flaws, welding slag or other defect in the substrate – such as casting sand inclusions or crack propagation in metal castings – following submersion in the zinc bath, which are due to hidden stresses in the metal, or different thicknesses of metal, are not the responsibility of the HDG:

9: Deformations.

- A. Deformations and non-alignment due to stresses inherent or induced in the material are not the responsibility of the HDG.
- B. The same applies for any changes occurring in the materials, such as aging or brittleness, due to the material reaction during processing

10: Variable zinc coating.

- A. Certain qualities of steel will bond more strongly with zinc than others, resulting in a thicker zinc coat. Accordingly the coat will often look darker or grey, and is particularly susceptible to mechanical impact due to poor adhesion. The HDG cannot be held responsible for this. The same applies when the steel quality limits the zinc coating thickness.
- B. If nothing else has been agreed upon, any additional costs resulting therefrom will be charged extra.

11: Ventilation and draining.

- A. Unvented enclosed cavities must not be galvanized as these can cause explosions during hot dip galvanizing which represent a major risk to those present. Tanks, closed vessels, closed voids, hollow sub-assemblies- such as pipe spools and similar – and gaps between welded surfaces, must all be drilled out to provide vent holes and drain hoels.
- B. If the article has previously contained a flammable substance, then this must be completely removed, as otherwise a fire and explosion risk may occur.
- C. The location of holes demands special technical knowledge and should therefore be left to the HDG or agreed beforehand in consultation with him.

12. White rust

The occurrence of white rust (a light, white, milky substance on the surface) gives no reason for return or complaint, see NS-EN ISO 1461 – subsection 6.1

13. Overcoating – duplex systems.

If any overcoating, or other after treatment is performed by other than HDG, the HDG can not be held responsible for damage resulting from these operations, for example peeling of the zinc coating due to too hard sandblasting.

14. Complaint, repair, regalvanizing.

- A. Any complaints must be in writing without undue delay, and no later than 2 weeks after delivery.
 - B. If control can not be made within two weeks, a new deadline must be agreed in writing.
 - C. If the complaint is justified, such as larger uncoated spots than specified in NS-EN ISO 1461, error in the zinc coating will normally be corrected by partial repair.
- If this is assumed to not provide the desired corrosion protection, regalvanizing will be made free of charge.

15. Objections.

Objections to one or more of these conditions must be made in writing before the goods are delivered to the hot-dip galvanizing. This also applies if the objection relates to any deviation from the customer's purchasing conditions.

16. Price.

All prices in kr. pr. kilo are given for the weight of the goods **after** it has been galvanized.

Excerpted from Nordic Galvanizers Guidelines., Please visit www.nordicgalvanizers.com